|  |  |
| --- | --- |
| **G Task 1a** | |
| **Domain** | Geometry |
| **Cluster** | Reason with shapes and their attributes. |
| **Standard(s)** | **2.G.1** Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles quadrilaterals, pentagons, hexagons, and cubes.  \*Sizes are compared directly or visually, not compared by measuring. |
| **Materials** | SF, pencil |
| **Task** | Provide the student with the materials. Read the directions: *Circle all of the quadrilaterals.* *Explain how you know that the shapes you circled are quadrilaterals.* |

|  |  |  |
| --- | --- | --- |
| **Continuum of Understanding** | | |
| **Developing Understanding** | * Identifies some of the quadrilaterals, but not all. * Uses non-defining attributes in the justification (e.g., size, color) | Answer:  Identifies types of quadrilaterals:   * square * rectangle * trapezoid |
| **Complete Understanding** | * Identifies all of the quadrilaterals. * Uses defining attributes to justify why each shape is a quadrilateral (sides, angles) |

|  |
| --- |
| **Standards for Mathematical Practice** |
| **1. Makes sense and perseveres in solving problems.** |
| 2. Reasons abstractly and quantitatively. |
| **3. Constructs viable arguments and critiques the reasoning of others.** |
| 4. Models with mathematics. |
| 5. Uses appropriate tools strategically. |
| **6. Attends to precision.** |
| **7. Looks for and makes use of structure.** |
| 8. Looks for and expresses regularity in repeated reasoning. |

**Circle all of the quadrilaterals.**

|  |
| --- |
|  |

**Explain how you know that the shapes you circled are quadrilaterals.**

­

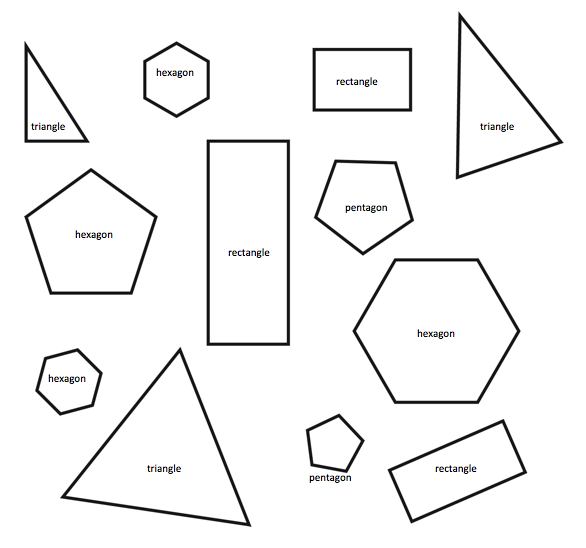
|  |  |
| --- | --- |
| **G Task 1b** | |
| **Domain** | Geometry |
| **Cluster** | Reason with shapes and their attributes. |
| **Standard(s)** | **2.G.1** Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles quadrilaterals, pentagons, hexagons, and cubes.  \*Sizes are compared directly or visually, not compared by measuring. |
| **Materials** | SF, red, green, blue and orange crayon |
| **Task** | Provide the student with the materials. Say to the student:   1. *Use your red crayon to draw a circle around all of the pentagons.* 2. *Use your green crayon to draw a circle around all of the triangles.* 3. *Use your blue crayon to draw a circle around all of the hexagons.* 4. *Use your orange crayon to draw a circle around all of the rectangles.* |

|  |  |  |
| --- | --- | --- |
| **Continuum of Understanding** | | |
| **Developing Understanding** | * Identifies some of the shapes correctly, but not all. | Correctly identifies all of the:   * pentagons * triangles * hexagons * rectangles |
| **Complete Understanding** | * Correctly identifies all of the shapes. |

|  |
| --- |
| **Standards for Mathematical Practice** |
| 1. Makes sense and perseveres in solving problems. |
| 2. Reasons abstractly and quantitatively. |
| 3. Constructs viable arguments and critiques the reasoning of others. |
| 4. Models with mathematics. |
| 5. Uses appropriate tools strategically. |
| **6. Attends to precision.** |
| 7. Looks for and makes use of structure. |
| 8. Looks for and expresses regularity in repeated reasoning. |

G Task 1b

ANSWER KEY

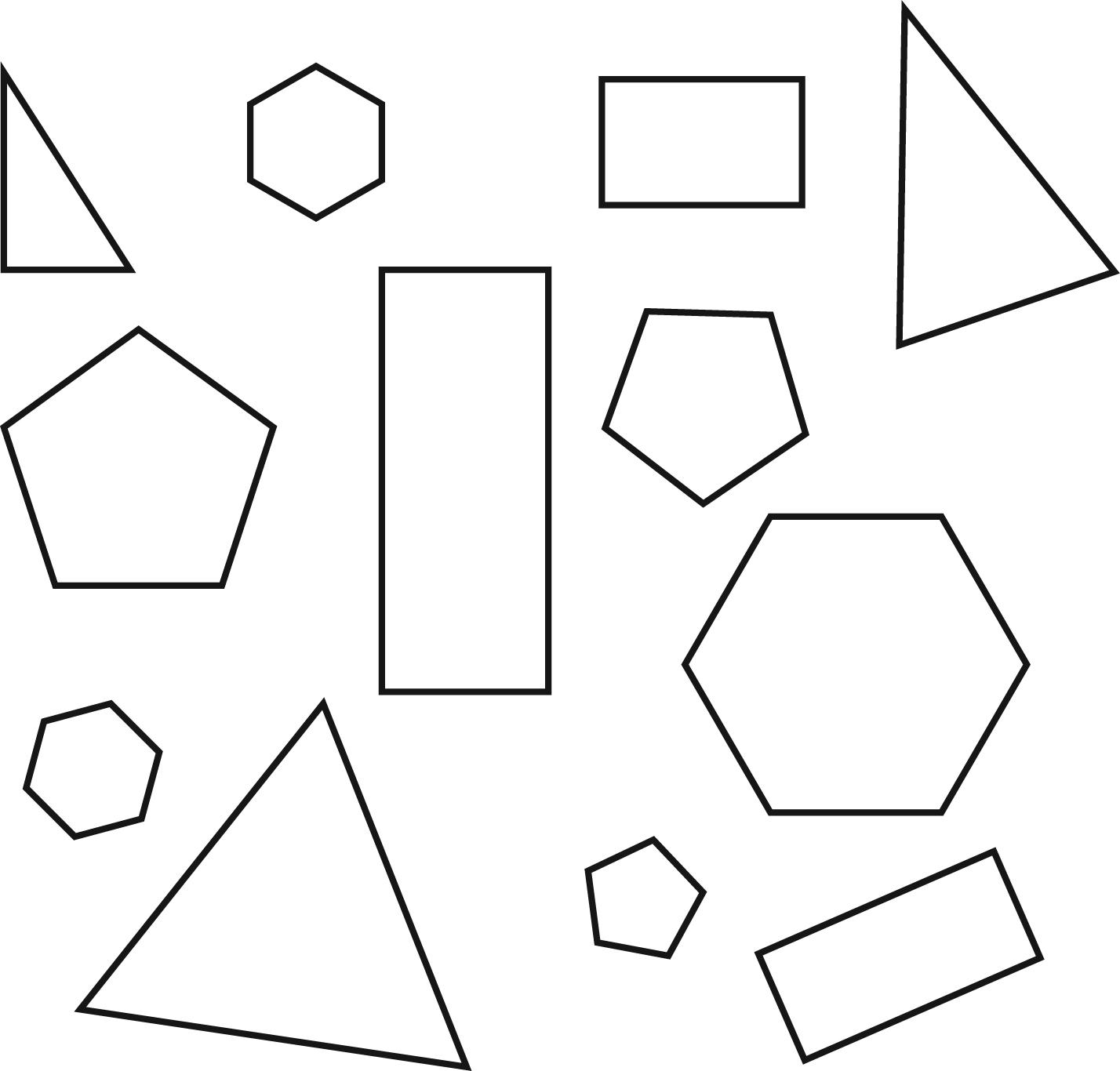


**1. Use your red crayon to draw a circle around all of the pentagons.**

**2. Use your green crayon to draw a circle around all of the triangles.**

**3. Use your blue crayon to draw a circle around all of the hexagons.**

**4. Use your orange crayon to draw a circle around all of the rectangles.**



|  |  |
| --- | --- |
| **G Task 1c** | |
| **Domain** | Geometry |
| **Cluster** | Reason with shapes and their attributes. |
| **Standard(s)** | **2.G.1** Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles quadrilaterals, pentagons, hexagons, and cubes.  \*Sizes are compared directly or visually, not compared by measuring. |
| **Materials** | Cube |
| **Task** | Show the student a cube. Ask: *Is this shape a cube?* Then, say: *Why do you think it is (or isn’t) a cube?* Students may tell or write their responses. |

|  |  |
| --- | --- |
| **Continuum of Understanding** | |
| **Developing Understanding** | * States that the shape is not a cube. * Identifies the shape as a cube, but does not use correct defining attributes to describe the shape. |
| **Complete Understanding** | * Correctly identifies the shape as a cube and uses defining attributes to describe the shape (e.g., 6 square faces) |

|  |
| --- |
| **Standards for Mathematical Practice** |
| 1. Makes sense and perseveres in solving problems. |
| 2. Reasons abstractly and quantitatively. |
| 3. Constructs viable arguments and critiques the reasoning of others. |
| 4. Models with mathematics. |
| 5. Uses appropriate tools strategically. |
| **6. Attends to precision.** |
| 7. Looks for and makes use of structure. |
| 8. Looks for and expresses regularity in repeated reasoning. |

|  |  |
| --- | --- |
| **G Task 2a** | |
| **Domain** | Geometry |
| **Cluster** | Reason with shapes and their attributes. |
| **Standard(s)** | **2.G.2** Partition a rectangle into rows and columns of same-size squares and count to find the total number of them. |
| **Materials** | SF, pencil |
| **Task** | Provide the materials to the student. Read the directions: *Partition the rectangle into 2 rows and 2 columns of same-size squares. How many squares do you have?* |

|  |  |
| --- | --- |
| **Continuum of Understanding** | |
| **Developing Understanding** | * Incorrectly partitioned the rectangle into 2 rows. * Incorrectly partitioned the rectangle into 2 columns. * Some of the squares were distinctly larger (or smaller) than others. * Incorrectly counted the number of squares. |
| **Complete Understanding** | * Correctly partitioned the rectangle into 2 rows and 2 columns. * The squares were approximately all the same size. * Correctly counted 4 squares. |

|  |
| --- |
| **Standards for Mathematical Practice** |
| **1. Makes sense and perseveres in solving problems.** |
| 2. Reasons abstractly and quantitatively. |
| 3. Constructs viable arguments and critiques the reasoning of others. |
| 4. Models with mathematics. |
| 5. Uses appropriate tools strategically. |
| **6. Attends to precision.** |
| 7. Looks for and makes use of structure. |
| 8. Looks for and expresses regularity in repeated reasoning. |

**Partition the rectangle into 2 rows and 2 columns of same-size squares.**

**How many same-size squares do you have? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

|  |  |
| --- | --- |
| **G Task 2b** | |
| **Domain** | Geometry |
| **Cluster** | Reason with shapes and their attributes. |
| **Standard(s)** | **2.G.2** Partition a rectangle into rows and columns of same-size squares and count to find the total number of them. |
| **Materials** | SF, pencil |
| **Task** | Provide the materials to the student. Read the directions: *Partition the rectangle into 3 rows and 4 columns of same-size squares. How many squares do you have?* |

|  |  |
| --- | --- |
| **Continuum of Understanding** | |
| **Developing Understanding** | * Incorrectly partitioned the rectangle into 3 rows. * Incorrectly partitioned the rectangle into 4 columns. * Some of the squares were distinctly larger (or smaller) than others. * Incorrectly counted the number of squares. |
| **Complete Understanding** | * Correctly partitioned the rectangle into 3 rows and 4 columns. * The squares were approximately all the same size. * Correctly counted 12 squares. |

|  |
| --- |
| **Standards for Mathematical Practice** |
| **1. Makes sense and perseveres in solving problems.** |
| 2. Reasons abstractly and quantitatively. |
| 3. Constructs viable arguments and critiques the reasoning of others. |
| 4. Models with mathematics. |
| 5. Uses appropriate tools strategically. |
| **6. Attends to precision.** |
| 7. Looks for and makes use of structure. |
| 8. Looks for and expresses regularity in repeated reasoning. |

**Partition the rectangle into 3 rows and 4 columns of same-size squares.  
How many squares do you have?**

**How many same size squares do you have? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

|  |  |
| --- | --- |
| **G Task 3a** | |
| **Domain** | Geometry |
| **Cluster** | Reason with shapes and their attributes. |
| **Standard(s)** | **2.G.3.** Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape. |
| **Materials** | SF, Paper, pencil |
| **Task** | Provide materials to the student. Read the problem: *You have 3 rectangular cakes. Cut each cake into fourths in three different ways. Explain how you know that each cake has been partitioned into fourths.* |

|  |  |  |
| --- | --- | --- |
| **Continuum of Understanding** | | |
| **Developing Understanding** | * Incorrectly partitioned one or more cakes into 4 equal pieces. * Explanation does not include an understanding that each cake needed to be partitioned into 4 pieces. * Explanation does not include an understanding that each fractional part needs to be the same size. | Possible Solutions  **Note**: Although each fractional piece may not be the same shape, the size (area) of each fractional piece has the same area. Each piece represents one-fourth of the whole rectangle. |
| **Complete Understanding** | * Correctly partitioned each rectangle into fourths in a different way. * Explanation includes an understanding that there needs to be four pieces and that each fractional piece needs to be the same size. |

|  |
| --- |
| **Standards for Mathematical Practice** |
| **1. Makes sense and perseveres in solving problems.** |
| 2. Reasons abstractly and quantitatively. |
| **3. Constructs viable arguments and critiques the reasoning of others.** |
| 4. Models with mathematics. |
| 5. Uses appropriate tools strategically. |
| **6. Attends to precision.** |
| 7. Looks for and makes use of structure. |
| 8. Looks for and expresses regularity in repeated reasoning. |

**You have 3 rectangular cakes.**

**Cut each cake into fourths in three different ways.**

**Explain how you know that each cake has been partitioned into fourths.**

­

­

|  |  |
| --- | --- |
| **G Task 3b** | |
| **Domain** | Geometry |
| **Cluster** | Reason with shapes and their attributes |
| **Standard(s)** | **2.G.3.** Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape. |
| **Materials** | SF, paper, pencil |
| **Task** | Provide materials to the student. Read the problem: *You have 2 round cookies. Cut each cookie into fourths in two different ways. Explain how you know that each cookie has been partitioned into fourths.* |

|  |  |  |
| --- | --- | --- |
| **Continuum of Understanding** | | |
| **Developing Understanding** | * Incorrectly partitioned one or more cookies into 4 equal pieces. * Explanation did not include an understanding that each cookie needed to be partitioned into 4 pieces. * Explanation did not include an understanding that each fractional part needs to be the same size. | Possible Solutions |
| **Complete Understanding** | * Correctly partitioned each cookie into fourths in a different way. * Explanation includes an understanding that there needs to be four pieces and that each fractional piece needs to be the same size. |

|  |
| --- |
| **Standards for Mathematical Practice** |
| **1. Makes sense and perseveres in solving problems.** |
| 2. Reasons abstractly and quantitatively. |
| **3. Constructs viable arguments and critiques the reasoning of others.** |
| 4. Models with mathematics. |
| 5. Uses appropriate tools strategically. |
| **6. Attends to precision.** |
| 7. Looks for and makes use of structure. |
| 8. Looks for and expresses regularity in repeated reasoning. |

**You have 2 round cookies.**

**Cut each cookie into fourths in two different ways.**

**Explain how you know that each cookie has been partitioned into fourths.**

­

­

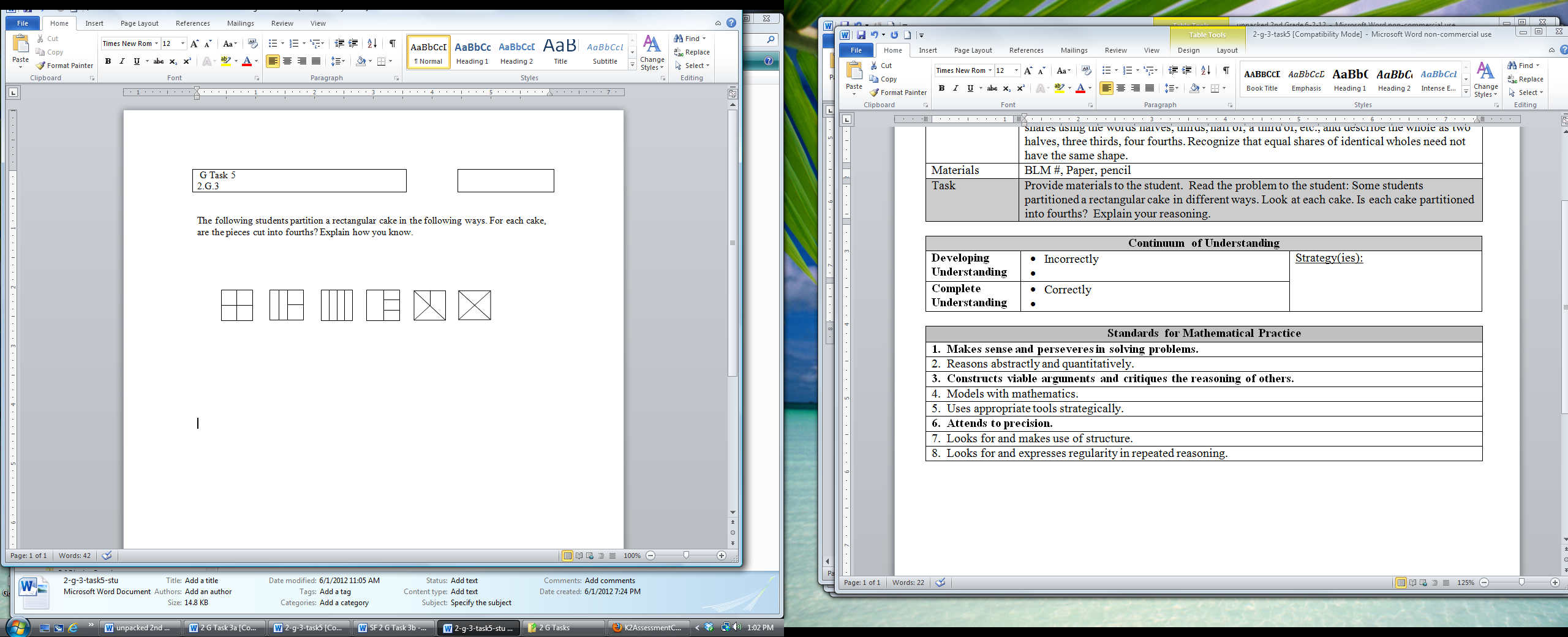
|  |  |
| --- | --- |
| **G Task 3c** | |
| **Domain** | Geometry |
| **Cluster** | Reason with shapes and their attributes. |
| **Standard(s)** | **2.G.3** Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape. |
| **Materials** | SF, Paper, pencil |
| **Task** | Provide materials to the student. Read the problem to the student: *Some students partitioned a rectangular cake in different ways. Look at each cake. Is each cake partitioned into fourths? Explain your reasoning.* |

|  |  |  |
| --- | --- | --- |
| **Continuum of Understanding** | | |
| **Developing Understanding** | * Incorrectly circles one or more cakes that are not partitioned into fourths. * Circles some cakes that are partitioned into fourths, but not all. * Justification does not include an understanding that each cake needed to be partitioned into 4 pieces. * Explanation did not include an understanding that each fractional part needs to be the same size. | Solution:  **Note**: Although each fractional piece may not be the same shape, the size (area) of each fractional piece has the same area. Each piece represents one-fourth of the whole rectangular cake. |
| **Complete Understanding** | * Correctly circles all cakes correctly partitioned into fourths. * Explanation includes an understanding that there needs to be four pieces and that each fractional piece needs to be the same size. |

|  |
| --- |
| **Standards for Mathematical Practice** |
| **1. Makes sense and perseveres in solving problems.** |
| 2. Reasons abstractly and quantitatively. |
| **3. Constructs viable arguments and critiques the reasoning of others.** |
| 4. Models with mathematics. |
| 5. Uses appropriate tools strategically. |
| **6. Attends to precision.** |
| 7. Looks for and makes use of structure. |
| 8. Looks for and expresses regularity in repeated reasoning. |

**Some students partitioned a rectangular cake in different ways.**

**Circle each cake that is correctly partitioned into fourths.**



**Explain your reasoning.**

­

­

­

­

|  |  |
| --- | --- |
| **G Task 3d** | |
| **Domain** | Geometry |
| **Cluster** | Reason with shapes and their attributes. |
| **Standard(s)** | **2.G.3** Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape. |
| **Materials** | BLM, pencil, scissors. *The shapes may be cut out of the Blackline Master before providing shapes to the student.* |
| **Task** | Provide the materials to the student. Read the problem to the student: *Fold and cut the rectangle so that you can share it equally between 3 people. Explain how you know that you shared it equally between 3 people.*  After the student has finished the rectangle task, say: *Fold and cut the circle so that you can share it equally between 3 people. Explain how you know that you shared it equally between 3 people.* |

|  |  |  |
| --- | --- | --- |
| **Continuum of Understanding** | | |
| **Developing Understanding** | * Incorrectly partitions one or both shapes into 3 equal pieces. * Explanation does not include an understanding that each cake needed to be partitioned into 3 pieces. * Explanation does not include an understanding that each fractional part needs to be the same size. | Strategy(ies):   * Folds and cuts shapes * Draws lines before cutting * Stacks shapes on top of each other to check size of each * Other: |
| **Complete Understanding** | * Correctly partitioned both shapes into thirds. * Explanation includes an understanding that there needs to be three pieces and that each fractional piece needs to be the same size. |

|  |
| --- |
| **Standards for Mathematical Practice** |
| **1. Makes sense and perseveres in solving problems.** |
| 2. Reasons abstractly and quantitatively. |
| 3. Constructs viable arguments and critiques the reasoning of others. |
| **4. Models with mathematics.** |
| 5. Uses appropriate tools strategically. |
| **6. Attends to precision.** |
| 7. Looks for and makes use of structure. |
| 8. Looks for and expresses regularity in repeated reasoning. |